IN THE CLAIMS:

1. (Currently Amended) An air purification system for receiving incoming air containing impurities and outputting purified air into ductwork of a building, the system comprising:

a hood defining a hood outlet in communication with the ductwork;

a primary filter member mounted to the hood for receiving the incoming air, removing at least a portion of the impurities therefrom, and outputting a primary airflow; and

a secondary filter member mounted to the hood at a location downstream of the primary filter for receiving the primary output airflow therefrom, the secondary filter member having secondary filter beads selected from the group consisting of silica, metal, glass, a diatomaceous earth, ceramic, and zeolite, wherein the beads are operable to remove impurities from the primary airflow and output a secondary airflow to the hood outlet that is cleaner than the primary airflow.

2. (Original) The air purification system as recited in claim 1, further comprising a duct collar connected between the hood outlet and the ductwork to receive the secondary airflow from the secondary filter and forward the secondary airflow to the ductwork.

3. (Original)The air purification system as recited in claim 1, wherein the primary air filter operates using centrifugal filtration principles.

4. (Original)The air purification system as recited in claim 3, further comprising a collector disposed at one end of the primary filter operable to receive impurities removed from the incoming air.

5. (Currently Amended)The air purification system as recited in claim 1, wherein the ~~bed further comprises~~ secondary air filter includes inner and outer porous walls which are spaced apart and entrap the secondary filter beads therebetween ~~packed with the beads to trap therein the impurities removed from the primary airflow~~.

6. (Previously Presented)The air purification system as recited in claim 1, wherein the beads are porous.

7. (Previously Presented)The air purification system as recited in claim 1, wherein the beads are nonporous.

8. (Previously Presented)The air purification system as recited in claim 1, wherein the secondary air filter is operable to collect grease particles and VOC's.

9. (Previously Presented)The air purification system as recited in claim 7, wherein the beads define gaps therebetween that are sized to store the additional impurities therein.

10. (Currently Amended)The air purification system as recited in claim 9, further comprising a collector disposed at one end of the secondary filter member operable to receive the additional ~~particles~~ impurities therefrom.

11. (Previously Presented) The air purification system as recited in claim 7 9, wherein the nonporous beads are selected from the group consisting of a glass and metal.

12. (Currently Amended)The air purification system as recited in claim 5, in which the ~~further comprising a removable~~ outer porous wall is removable ~~that encloses the bed~~.

13. (Original) The air purification system as recited in claim 1, further comprising a fan operable to draw air through the primary and secondary filter members and out the duct collar.

14. (Currently Amended) The air purification system as recited in claim 3, wherein the primary filter member further comprises:

an elongated air filter chamber having a ~~closed~~ front, rear and ~~closed~~ opposing end walls ~~ends~~;

a pair of inlets formed in said air filter chamber front wall, each inlet of said pair of inlets being located adjacent one of said air filter chamber end walls ~~ends~~; and

an outlet formed in said chamber rear wall and located substantially midway between the opposing end walls ~~ends~~, wherein air enters said air filter chamber through said inlets and flows longitudinally toward said outlet through said air filter chamber in a helical path, and wherein said helical path causes impurities in said air to

impinge upon walls of said air filter chamber prior to said air exiting said air filter chamber through said outlet.

15. (Currently Amended)The air purification system as recited in claim 1, ~~wherein~~ in which the secondary filter member further comprises at least one chamber that contains the beads, wherein the chamber has ~~having~~ a front porous surface ~~face for~~ receiving incoming air, and ~~wherein the chamber is defined by porous walls that contain the beads, and~~ wherein the porous surface defines an angle substantially midway between 0 and 90 degrees with respect to the incoming air ~~porous walls extend outwardly from the front face~~.

16. (Currently Amended) An air filter chamber comprising:

a top wall;

a pair of side walls extending ~~inwardly~~ from outer ends of the top wall at one end and having distal ends at an opposite end, in which the top and side walls are defined by inner and outer porous members enclosing a filtration media therein; and

a front ~~face~~ opening defined by distal ends of the side walls configured to receive incoming impure air, in which the air can flow from the opening ~~and direct the air~~ into the top wall and side walls;

~~wherein the top and side walls are defined by inner and outer porous members enclosing a filter media therein; and~~

wherein the side walls extend substantially perpendicular with respect to ~~perpendicularly outwardly from~~ the front opening ~~face~~.

17. (Original) The air filter chamber as recited in claim 16, wherein the inner and outer porous members are spaced apart by a distance less than one inch.

18. (Original) The air filter chamber as recited in claim 16, wherein the inner and outer porous members are spaced apart at a distance which does not allow a pressure drop greater than 2 in H2O.

19. (Original) The air filter chamber as recited in claim 16, wherein the filter media comprises a porous material.

20. (Original) The air filter chamber as recited in claim 19, wherein the filter media comprises a silica gel.

21. (Original) The air filter chamber as recited in claim 19, wherein the filter media comprises a ceramic.

22. (Original) The air filter chamber as recited in claim 16, wherein the filter media comprises a nonporous material.

23. (Original) The air filter chamber as recited in claim 22, wherein the filter media is selected from the group consisting of glass and metal.

24. (Original) The air filter chamber as recited in claim 16, further comprising a pair of end walls disposed at distal ends of the inner and outer porous members to seal the filter media therein.

25. (Original) The air filter chamber as recited in claim 24, wherein at least one of the end walls is removable.

26. (Previously Presented) A method of removing impurities from an airflow in an air purification system disposed upstream of a building's ductwork, the air purification system being of the type having a primary filter and a secondary filter, the steps comprising:

(A) drawing incoming air having air impurities into the primary filter;

(B) removing air particles from the incoming airflow at the primary filter to produce a primary airflow;

(C) outputting the primary airflow directly into a filter media of the secondary filter that includes filtering beads;

(D) removing air particles from the primary airflow at the secondary filter media to produce a secondary airflow; and

(E) outputting the secondary airflow into the ductwork.

27. (Original)The method as recited in claim 26, wherein step (B) further comprises subjecting the incoming air to centrifugal forces.

28. (Currently Amended)The method as recited in claim 26, wherein the filtering beads are arranged as a packed ~~backed~~ bed of beads in the secondary filter.

29. (Previously Presented)The method as recited in claim 26, wherein the filtering beads are porous, wherein step (D) further comprises the step of absorbing impurities from the primary airflow into the beads.

30. (Previously Presented)The method as recited in claim 29, wherein the porous beads are made of silica.

31. (Currently Amended)The method as recited in claim 26, wherein the beads define air gaps therebetween, and wherein step (D) further comprises the step of receiving ~~absorbing~~ impurities from the primary airflow ~~into~~ at the air gaps.

32. (Previously Presented)The method as recited in claim 31, wherein the beads are nonporous and selected from the group consisting of glass and metal.

33. (Currently Amended)In an air purification system for removing airborne particles from an airflow prior to emitting the airflow into a buildings ductwork, the system including a hood defining a space for receiving incoming air having impurities and an outlet connected to the ductwork, and a primary filter mounted to the hood within the space, wherein the primary filter receives the incoming air and removes impurities prior to outputting once-filtered air towards the outlet, the improvement comprising:

a secondary filter mounted within the hood and disposed within the space at a location downstream of the primary filter, the secondary filter including a bed of filtering beads ~~that receives~~ through which the once-filtered air from the primary filter flows, the secondary filter ~~and entraps~~ entrapping airborne particles to output ~~at least~~ twice-filtered air towards the outlet.

34. (Currently Amended)The improvement as recited in claim 33, ~~wherein~~ the hood further comprising a top wall and a pair of side walls, wherein the primary and secondary filters ~~are angularly mounted~~ extend between the top wall and at least one of the side walls within the hood.

35. (Previously Presented)A method of fabricating a two stage air purification system operable to receive incoming air having air impurities and outputting twice filtered air into the ductwork of a building, the steps comprising:

providing a hood defining a hood outlet that is connectable to the ductwork, wherein the hood has a first filter mounted thereto to receive the incoming air and output once-filtered air toward the outlet; and

mounting a second filter to the hood at a location downstream of the first filter to receive the once-filtered air and output the twice-filtered air toward the hood outlet,

wherein the second filter has a filter media including filter beads, and wherein air can pass from the first filter to the second filter without passing through any other air filters.

36. (Previously Presented)The air purification system as recited in claim 1, wherein the silica is a silica gel.

37. (Previously Presented)The air purification system as recited in claim 1, wherein the primary filter is a baffle filter.

38. (Previously Presented)The air purification system as recited in claim 1, wherein air output from the primary filter does not pass through a filter media prior to entering the secondary filter member.

39. (Currently Amended)The air purification system as recited in claim 26, wherein the beads are selected from the group consisting of silica, metal, ~~and~~ glass, and ceramic.

40. (Previously Presented) The air purification system as recited in claim 39, wherein the silica is a silica gel.

41. (Previously Presented)The method as recited in claim 26, wherein the secondary airflow is output directly from the secondary filter into the ductwork without passing through an additional filter.

42. (Previously Presented) The method as recited in claim 31, wherein the beads are nonporous.

43. (Currently Amended) An air purification system for receiving incoming air containing impurities and outputting purified air into ductwork of a building, the system comprising:

a hood defining a hood outlet in communication with the ductwork;

a primary filter member mounted to the hood for receiving the incoming air, removing at least a portion of the impurities therefrom, and outputting a primary airflow; and

a secondary filter member mounted to the hood at a location downstream of the primary filter for receiving the primary output airflow therefrom, the secondary

filter member having a inner and outer porous walls defining a bed packed with secondary filter media operable to remove impurities from the primary airflow and trap therein the removed impurities and output a secondary airflow to the hood outlet that is cleaner than the primary airflow,

wherein the filter media ~~is nonporous and~~ defines ~~define~~ gaps therebetween that are sized to entrap the additional impurities therein.

44. (Currently Amended) The air purification system as recited in claim 43, further comprising a collector disposed at one end of the secondary filter member operable to receive the additional particles from the secondary filter ~~therefrom~~.

45. (Previously Presented) The air purification system as recited in claim 43, wherein the nonporous media is selected from the group consisting of a glass and metal.

46. (Previously Presented) The air purification system as recited in claim 43, further comprising a removable outer wall that encloses the bed.

47. (Previously Presented)The air purification system as recited in claim 33, wherein the bed of beads is packed.

48. (Previously Presented)The air purification system as recited in claim 33, wherein the secondary filter further comprises a wall that opens to enable the bed of beads to be removed from the filter.

49. (Previously Presented) The air purification system as recited in claim 33, wherein the beads are porous.

50. (Previously Presented) The air purification system as recited in claim 33, wherein the beads are nonporous.

51. (Previously Presented) The air purification system as recited in claim 33, wherein the secondary filter is disposed immediately downstream of the primary filter.

52. (Previously Presented)The air purification system as recited in claim 33, wherein the beads are selected from the group consisting of silica, metal, glass, a diatomaceous earth, and zeolite.

53. (Previously Presented) The air purification system as recited in claim 33, wherein the airborne particles are organic.

54. (Previously Presented) The air purification system as recited in claim 33, wherein the airborne particles comprise grease.

55. (New) The air filter as recited in claim 26, wherein the primary filter is a baffle filter.

56. (New) The air purification system as recited in claim 33, in which the primary filter and secondary filter are removably mounted to the hood to enable routine cleaning of the filters.

57. (New) The air purification system as recited in claim 33, in which the primary and secondary filters are disposed in respective planes which are substantially parallel to each other.

58. (New) The improvement as recited in claim 33, wherein the primary filter is a baffle filter.

59. (New) The air purification system as recited in claim 43, wherein the primary filter is a baffle filter.

60. (New) An air filter comprising:

a hood defining a space for receiving an incoming airflow having impurities and an outlet connected to the ductwork;

a first filter mounted to the hood that receives the incoming airflow and outputs first-filtered air;

a second filter mounted to the hood at a location downstream from the first filter with respect to the airflow, the second filter including two pairs of filtration chambers, each pair defining a front end that receives the first-filtered air and a rear end that outputs twice-filtered air, each pair of chambers including a first and second substantially rectangular panel that converge in a direction from the front end towards

the rear end and meet, each panel including inner and outer porous walls that contain a plurality of filtration members.

61. (New) The air filter as recited in claim 60, wherein the inner and outer porous walls are spaced apart by a distance less than one inch.

62. (New) The air filter as recited in claim 60, wherein the filtration members comprise a porous material.

63. (New) The air filter as recited in claim 60, wherein the filtration members are formed from silica.

64. (New) The air filter as recited in claim 63, wherein the filtration members are formed from a silica gel.

65. (New) The air filter as recited in claim 60, wherein the filtration members are formed from ceramic.

66. (New) The air filter as recited in claim 65, wherein the ceramic is porous.

67. (New) The air filter as recited in claim 60, wherein the filtration members are nonporous.

68. (New) The air filter as recited in claim 60, wherein the filtration media is formed from a material selected from the group consisting of glass, metal, zeolite, and a diatomaceous earth.

69. (New) The air filter as recited in claim 60, wherein the filtration members comprise beads.

70. (New) The air filter as recited in claim 60, wherein the second filter is removable from the hood.

71. (New) The air filter as recited in claim 60, wherein the first filter is a baffle filter.